

CLAIMS

Claims 1 – 20 are canceled.

21. (New) An internally resilient tie apparatus for ballasted railway track consisting of elastic or resiliently supported non-elastic blocks inserted into recesses in a concrete tie case, equipped with rail fastenings, and made of materials of such densities and of components of such dimensions that naturally occurring support irregularities of the track can be compensated for by the installation and maintenance processes which vary the spring rate and dynamic response of the internally resilient tie apparatus to compensate for the effect of site-specific variations of the track's foundation materials so that the dynamic track/train interaction response of a track equipped with a sequence of internally resilient ties is improved.

22. (New) An internally resilient tie apparatus for ballasted railway track consisting of elastic or resiliently supported non-elastic blocks inserted into recesses in a steel tie case, equipped with rail fastenings, and made of materials of such densities and of components of such dimensions that naturally occurring support irregularities of the track can be compensated for by the installation and maintenance processes which vary the spring rate and dynamic response of the internally resilient tie apparatus to compensate for the effect of site-specific variations of the track's foundation materials so that the dynamic track/train interaction response of a track equipped with a sequence of internally resilient ties is improved.

23. (New) An internally resilient railroad tie apparatus equipped with block retainers in concrete railroad tie cases so as to hold blocks including a boot with an elastomeric pad positioned at the bottom of said boot which are received in the tie cases for supporting rails forming complete rail tie assemblies, said apparatus comprising: a device for retaining the blocks

in the tie apparatus such that said rail tie assemblies may be lifted and moved by rail during track installation and maintenance, and for releasing the blocks from the ties when the elastomeric pad or the boot has to be replaced or removed.

24. (New) An internally resilient railroad tie apparatus equipped with block retainers in steel railroad tie cases so as to hold blocks including a boot with an elastomeric pad positioned at the bottom of said boot which are received in the tie cases for supporting rails forming complete rail tie assemblies, said apparatus comprising: a device for retaining the blocks in the tie apparatus such that said rail tie assemblies may be lifted and moved by rail during track installation and maintenance, and for releasing the blocks from the ties when the elastomeric pad or the boot has to be replaced or removed.

25. (New) The internally resilient railroad tie of claim 23 wherein the block retainers comprise a cast iron insert equipped with an anchor member for anchorage in the concrete tie case, and with a curved slot at the top of the anchor member to receive leaf springs that are secured by a vertical pin inserted into aligned holes on top of the anchor member.

26. (New) The internally resilient railroad tie of claim 24 wherein said block retainers comprise a cast iron insert equipped with an anchor having a thread extension for attachment to a steel case, said anchor member having a curved slot at the top to receive leaf springs that are secured by a vertical pin inserted into aligned holes on top of the anchor member.

27. (New) The internally resilient railroad tie of claim 25 wherein a space is left between the bottom surface of the bottom leaf spring and the corresponding contact surface of the block so that the upward movement of the rail occurring at a certain distance from applied wheel load is facilitated without lifting the concrete tie case of the internally resilient railroad tie and without any other interference with its contact plane on ballast.

28. (New) The internally resilient railroad tie of claim 26 wherein a space is left between the bottom surface of the bottom leaf spring and the corresponding contact surface of the block so that the upward movement of the rail occurring at a certain distance from applied wheel load is facilitated without lifting the steel tie case of the internally resilient railroad tie and without any other interference with its contact plane on ballast.

29. (New) Block of internally resilient tie of claims 23, and 24 comprising a sleeve made of electrically insulating material attached to the top of the block in such a manner that an overhang continuous around the block protrudes outward and slopes downward in such a manner that the bottom side of the overhang is protected from directly falling rain water.